"The postoperative neutrophil-to-lymphocyte ratio (NLR) is a major prognostic factor of outcome and mortality after surgery for hip fracture"

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the contrary, the NLR at D+7 could help in the early identification of patients at risk of complications.

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12AP4-3

Post-operative patient outcomes in cardiopulmonary exercise tested patients: a retrospective review

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Background and Goal of Study: This review analyses the correlation between cardiopulmonary exercise testing (CPET) and post-operative patient outcomes of elective surgical patients at Princess Alexandra Hospital (PAH), using patient's anaerobic threshold (AT) as a determinant. Patient outcomes are measured by the number of post-operative complications, using the post-operative morbidity survey, total length of stay in hospital and length of stay in ITU/HDU.
Materials and Methods: Patient data was retrieved from the PAH database and patient notes. 130 patients underwent CPET testing in 2011. 94 patients had time scheduled surgery at review commencement, 18 were not admitted, leaving 75 patients for regression analysis using Microsoft Excel. AT was categorised into < 6ml/kg/min, 6-8ml/kg/min, 8-11ml/kg/min, >11ml/kg/min, following closely to data by Waserman et al1, and Weber et al2. AT was analysed against outcomes for all surgeries and groups of major surgeries (aneurysm repairs, other vascular operations, colorectal surgery) following studies by Snowden et al3 and Wilson et al4. The Lee's Revised Cardiac Risk Index5 was calculated and regressed against morbidity.
Results and Discussion: For all operations, the correlation between AT and post-operative outcome is 12%. AT was able to predict patient outcomes of aortic aneurysm repairs by 33%, other vascular surgeries by 38% and major colorectal surgeries by 31%. Morbidity is an important predictor of outcomes for aortic aneurysm repairs (significant t-stat value -2.88, 95% confidence interval). Morbidity and length of hospital stay are greater influencing factors than length of ITU stay for other vascular surgeries (t-stat value 1.64, -1.92, 0.25 respectively). Length of hospital stay has most influence for patients major colorectal surgery (t-stat 1.80).
The Lee revised Cardiac Index and AT are 77% and 1.44% correlated with post-operative complications. At AT < 11ml/kg/min, we found a 0.94% correlation with post-operative morbidity.
Conclusion(s): Using AT to predict patient outcomes post-surgery is dependent operation type, with an average of 34% correlation for major surgeries. AT is unable to determine the length of stay in ITU/HDU. This is due to other factors influencing patient outcomes such as age and co-morbidities. The Lee Revised Cardiac Risk Index is better able to predict post-operative morbidity than the AT values alone.

12AP4-4

Embolization for controlling traumatic pelvic hemorrhage: analysis of the pelvic fracture database in a trauma center

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Background and Goal of Study: Patients with severe pelvic fractures and hemodynamically unstable are difficult to manage and his prognosis is determined by the complexity and severity of pelvic trauma and associated injuries. The goal of study was to know the incidence and results obtained in the management of politraumatic patients with severe pelvic fractures who underwent arterial embolization in a trauma center.
Materials and Methods: Prospective study of patients included in our traumatic database between January 2009 and August 2012. Demographic and clinical data were studied: age, gender, injury mechanism, hemodynamic status and trauma scores. Mortality and complications post embolization were statistically analized.
Results and Discussion: Out of 827 patients with severe trauma admitted during the study period, 61 (7.4%) had pelvic fracture. 63% were men. The average was 44.1 (±19) years. Injury mechanism: 38.3% fell down, 43.3% had a traffic accident, 10.0% were run over and 1.7% were by a firearm. Out of 61 pelvic fractures, 17 (31%) were hemodynamic unstable at admision and 15 (24.6%) underwent angiography, with 11 (73.3%) embolizations, and gluteus ischaemia was observed in 2 patients. Mean Injury Severity Score (ISS) of patients with pelvic fractures was 19.64 and initial Revised Trauma Score (RTS) 7.11. An external noninvasive pelvic device was used in 100% of patients with unstable pelvis and 4.9% of pelvic fractures underwent external orthopedic fixation. Global mortality of pelvic fractures was 12.9%.
Conclusion(s): Hemorrhage associated with pelvic fractures is the major cause of morbidity and mortality in traumátic patients .Venous and arterial bleeding are responsible for such hemorrhage. The key of patient management is based on mechanical treatment that closes the pelvic ring, controlling venous bleeding and artery embolization.

12AP4-5

The postoperative neutrophil-to-lymphocyte ratio (NLR) is a major prognostic factor of outcome and mortality after surgery for hip fracture

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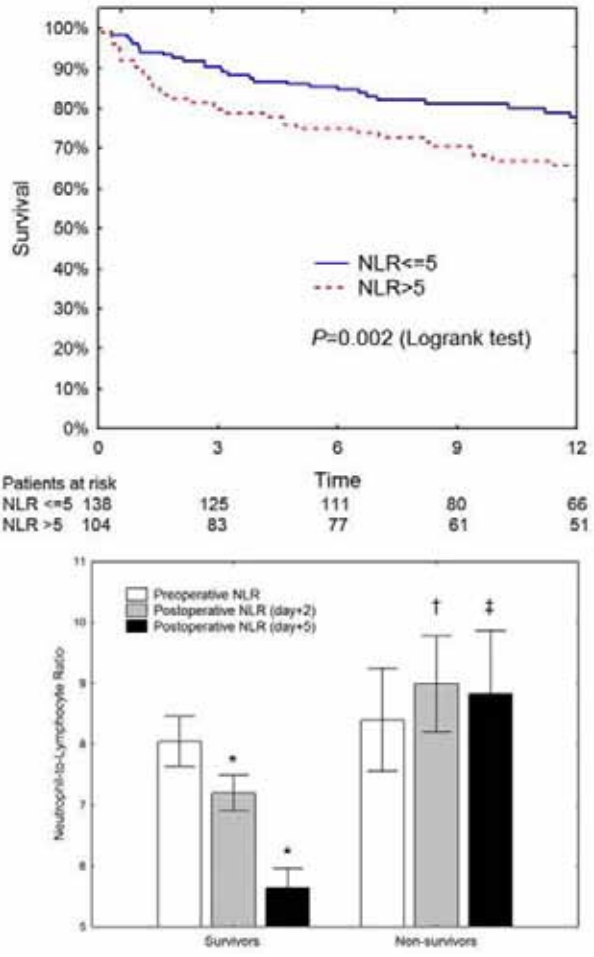
Background and Goal of Study: The neutrophil-to-lymphocyte ratio (NLR) is a cheap inflammatory biomarker and a strong independent prognostic factor for outcome and survival in cardiology, oncology and digestive surgery. We investigated the prognostic value of NLR on mortality after emergency surgery for hip fracture.
Materials and Methods: Retrospective analysis of a prospective cohort of 247 consecutive patients, >65 years, operated for hip fracture between October 2010 and February 2012 in our teaching hospital. Demographics characteristics, preoperative comorbidities, postoperative complications were registred, as well as mortality. Complete blood count (CBC) was obtained upon admission, and on day 2 and 5 after surgery. We calculated the neutrophil-to-lymphocyte ratio (NLR) on the basis of recorded absolute total neutrophil and lymphocyte counts.



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